April 10, 1928. 1,665,583

J. S. DUNCAN ET AL

HAND ADDRESSING MACHINE

Original Filed Aug. 26, 1925 3 Sheets-Sheet 1

Fig. 1

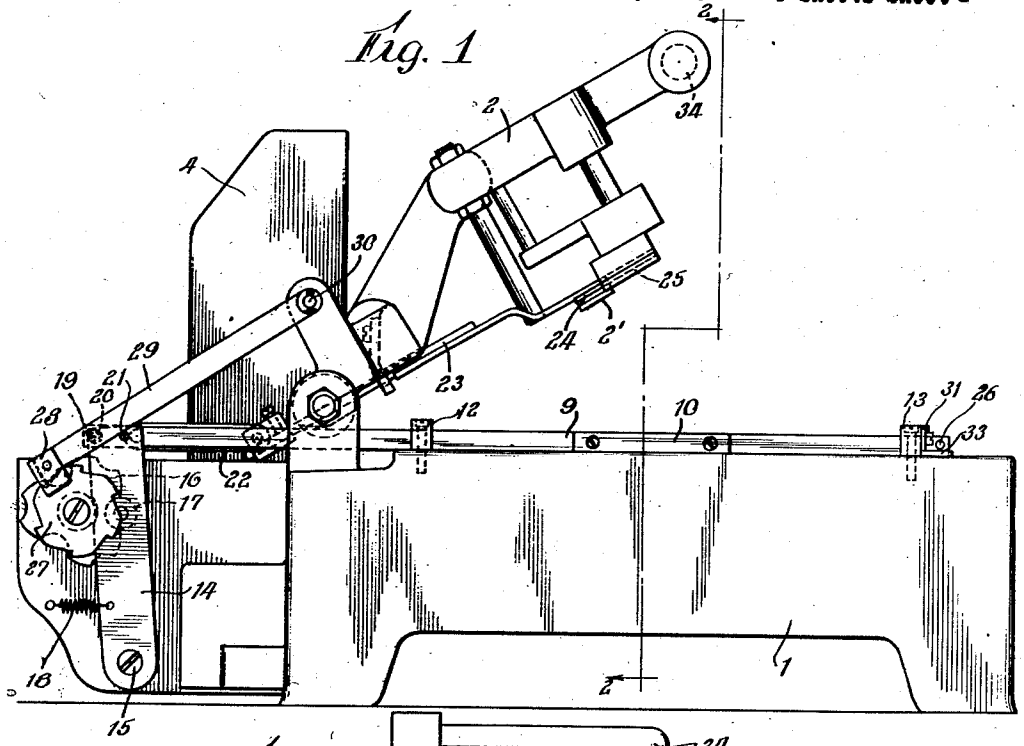
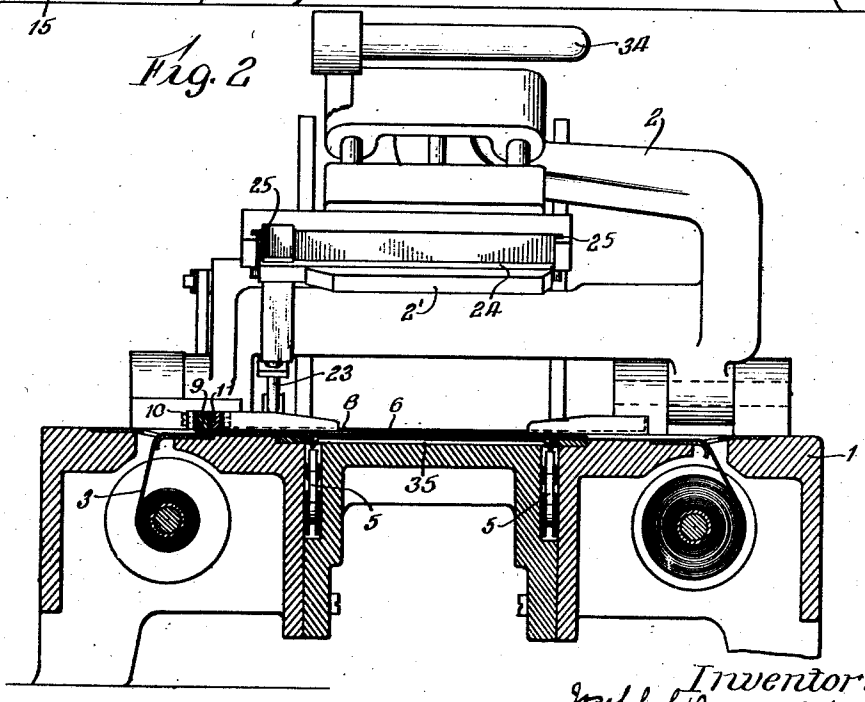


Fig. 2



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Fig. 3

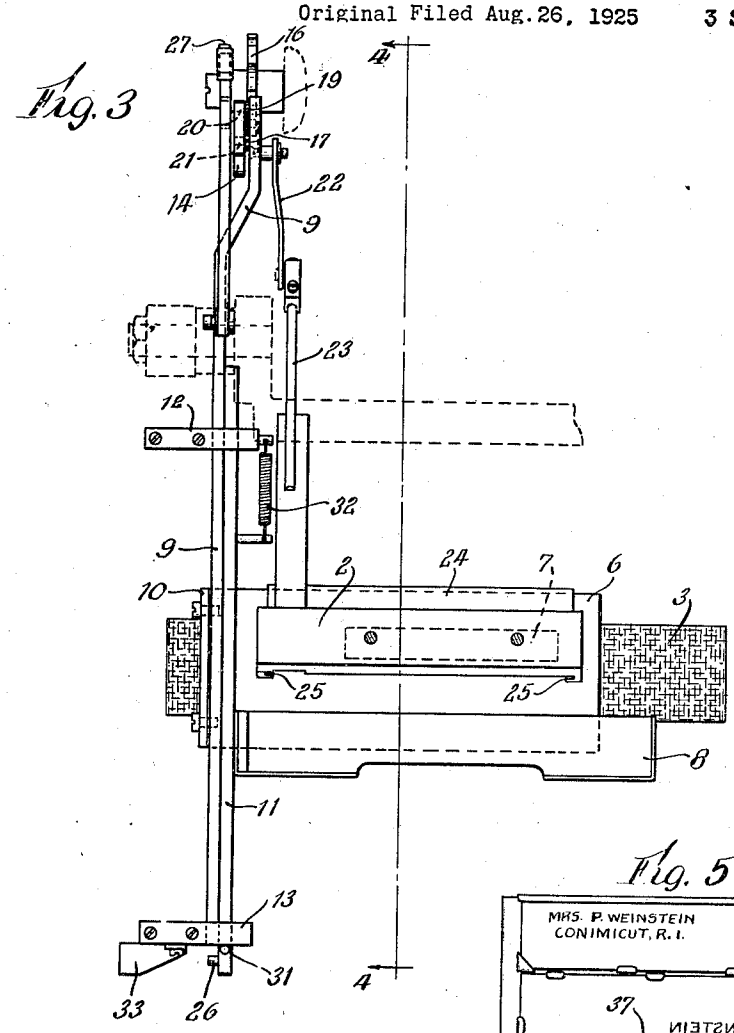


Fig. 5

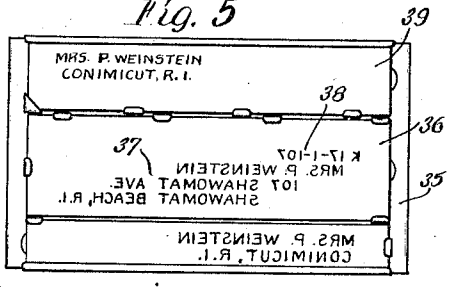
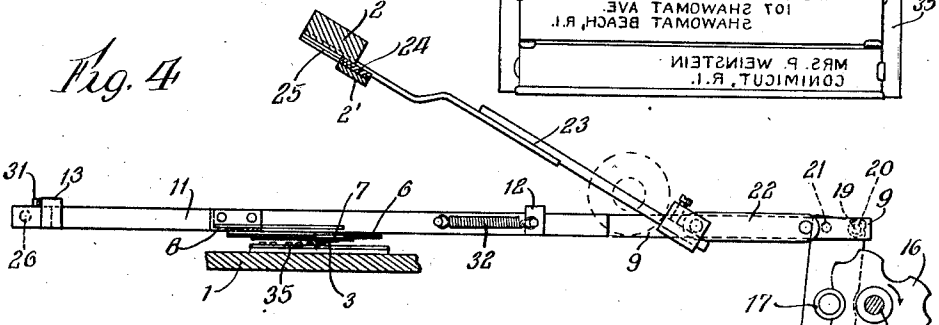


Fig. 4



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Fig. 6

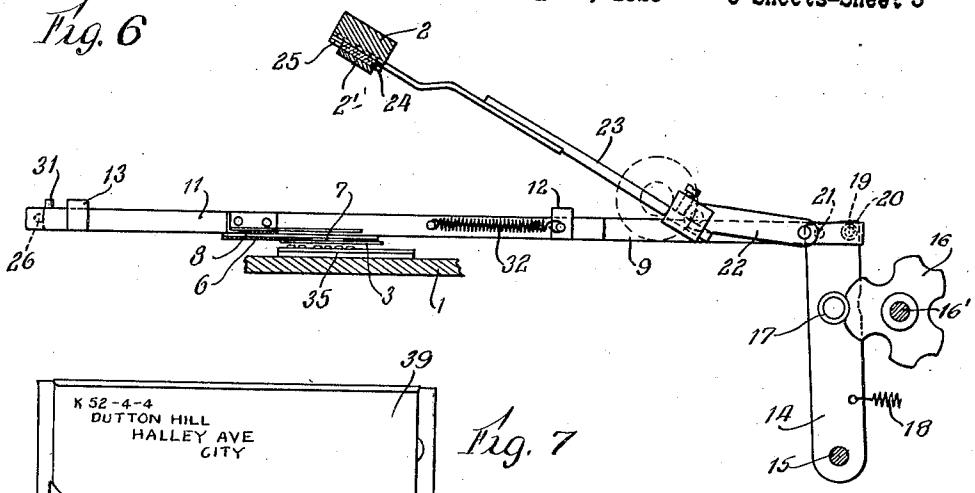


Fig. 7

Fig. 8

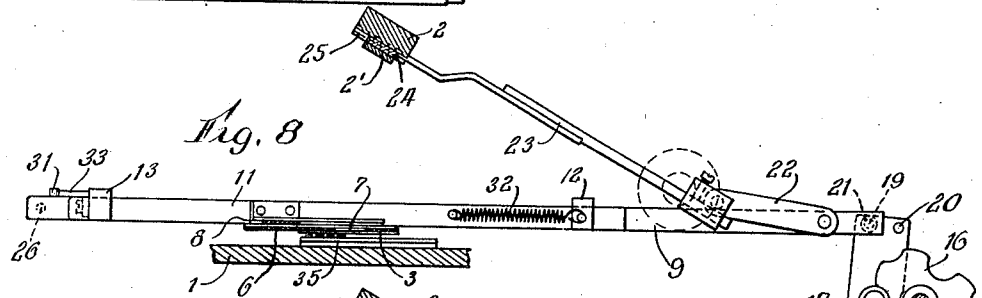


Fig. 9

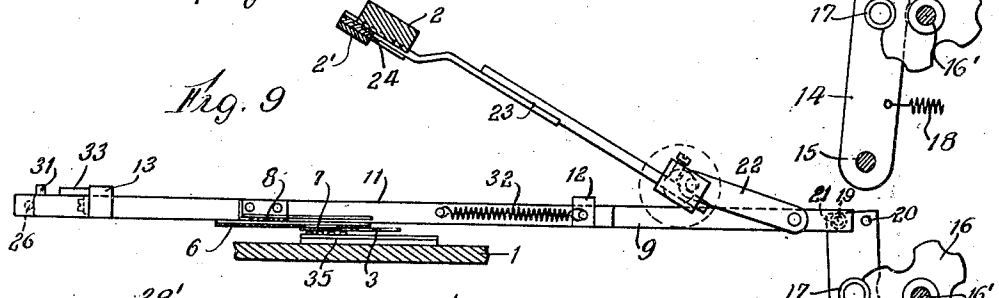
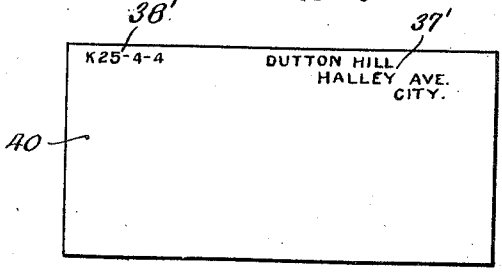


Fig. 10



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Patented Apr. 10, 1928. 1,665,583

UNITED STATES PATENT OFFICE.

JOSEPH S. DUNCAN AND HENRY E. HUBBARD, OF CHICAGO, ILLINOIS, ASSIGNORS, BY MESNE ASSIGNMENTS, TO ADDRESSOGRAPH COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF DELAWARE.

HAND ADDRESSING MACHINE.

Application filed August 26, 1925, Serial No. 52,502. Renewed July 11, 1927.

This invention relates to a novel and improved addressing machine, particularly of the hand operated type. In addressing machines it is common to employ printing devices having type thereon arranged in lines so as to print an address, or the like. When using these devices to address envelopes or wrappers, the type prints the addresses in accordance with the arrangement of the lines thereon, but at times it is desired to print the same information with the lines arranged differently than they would be if printed directly from the printing device in the usual manner. For example, the printing devices commonly carry identification characters, by which reference may be had to the file corresponding to the address, or for other purposes. These identification characters are usually arranged immediately above the address and at one corner of the plate carried by the printing device. It is sometimes desirable to have the identification characters printed in a different location, and on a different line in respect to the address, from that which they occupy on the plate.

It is therefore the object of our invention to provide a machine having means for automatically shifting the platen and associated parts so as to permit a transposing of the lines of a printing device, and particularly so as to permit the printing of the identification characters referred to above on the same line as the first line of the address.

In the accompanying drawings in which we have shown a selected embodiment of our invention;

Fig. 1 is a side elevation of a machine having our invention applied thereto.

Fig. 2 is a section on the line 2—2 of Fig. 1.

Fig. 3 is a plan view of so much of the structure shown in Figs. 1 and 2 as is necessary to an understanding of our invention.

Fig. 4 is a section on the line 4—4 of Fig. 3, and showing our invention in use with one style of printing device.

Fig. 5 is a view of the printing device appearing in Fig. 4.

Fig. 6 is a view similar to Fig. 4, but showing the parts in a different position.

Fig. 7 is a view similar to Fig. 5, but showing a different style of printing device.

Fig. 8 is a view similar to Fig. 4, but showing our invention being employed with the printing device shown in Fig. 7.

Fig. 9 is a view similar to Fig. 8, but showing the parts in a different position.

Fig. 10 is a view of a card printed by use of our invention.

Referring now to the drawings the numeral 1 designates the frame of a machine of the hand operated type having an arm 2 pivotally mounted thereon and carrying a platen 2′, adapted to cooperate with an inked ribbon 3 which travels transversely of the frame. At the rear of the machine is a magazine 4 for holding printing devices which are fed forwardly one at a time beneath the ribbon 3 by suitable mechanism indicated at 5, this mechanism being well known in the art and forming no part of the present invention.

Disposed immediately above the ribbon 3 is the ribbon guard or cut-off plate 6 having a suitable opening 7 therein to register with the type on the printing device from which it is desired to take an impression, and thereby determine the number of lines of type to be printed. Above this cut-off plate is placed a gauge 8 upon which envelopes or cards are placed when it is desired to print thereon. The cut-off plate 6 extends under a rod 9 disposed longitudinally of the machine and is secured to the outer side of the rod 9 by means of the upturned flange 10 on the cut-off plate. The gauge 8 is secured to the inner side of a rod 11 lying in close juxtaposition to the rod 9. The rods 9 and 11 are slidably mounted in guides 12 and 13 secured to the frame of the machine and movement of these rods controls the positions of the cut-off plate 6 and gauge 8.

The rod 9 is hinged at its rear end to a lever 14 pivoted at 15 upon the machine frame and operated by a cam 16 mounted on a shaft 16′ and acting against a roller 17 on the lever 14 and which is urged into engagement with the cam by a suitable spring 18. In order to provide for use with different styles of printing devices the rod 9 is provided with a pin 19, which may be received in either one of a plurality of holes in the lever 14. In this embodiment we have shown these holes as being two in number and designated 20 and 21. Pivoted to the rod 9 adjacent the rear end thereof is a link

22 pivoted at its other end to a rod 23 carrying at its forward end the platen holder 24 mounted to slide in guides 25 on the platen arm 2. Adjacent the forward end of the rod 11 there is a pin 26 extending into the path of travel of the rod 9.

Mounted on the same shaft 16' as the cam 16 is a ratchet 27 cooperating with a pawl 28 on the end of a link 29 pivoted at 30 to the platen arm 2. Rearward movement of the rod 11 is limited by engagement of a pin 31 thereon with the guide 13, the spring 32 urging the rod rearwardly. The guide 13 acts as a stop, engaging the pin 31 when the pin 19 is inserted in the hole 20 in the lever 14, but when the pin 19 is inserted in the hole 21, then the pin 31 co-acts with a stop 33 pivoted to the guide 13 and shown in Fig. 3 in its inoperative position. This stop is adapted to be swung about its pivot and come to rest upon the top of the rod 11, as plainly shown in Figs. 8 and 9. A suitable handle 34 is provided for depression of the platen arm which is normally held in its raised position, as shown in Figs. 1 and 2, by a suitable spring, not shown.

Referring now to Figs. 5 and 7, we have shown therein two styles of printing devices in each of which there is embodied a frame 35 on which is secured a plate 36 carrying the type from which the address is to be printed. This type is arranged in lines, as plainly shown, so as to give the address 37 which is to be printed and also an identification mark, usually provided by a series of characters, as indicated at 38. Above the plate 36 is secured a card 39 upon which is printed the whole or a part of the information contained on the plate 36. It will be noted that the type is reversed in the usual manner, while the information on the card is printed in position to be read in the usual manner. In this manner the printing devices may be readily identified.

In operation and assuming that the printing device of Fig. 5 is to be used and that it is desired to print both identification characters and address upon a card 40 in the position shown in Fig. 10, the card is first placed by hand in the forward left hand corner of the gauge 8 and the pin 19 is placed in the hole 20, as shown in Figs. 3, 4 and 6, the initial position of the parts being shown in Figs. 3 and 4. From Fig. 4 it will be seen that the cut-off plate 6 is so disposed in relation to the printing device beneath it that only the top row of type is exposed through the opening therein. This row is that comprising the identification characters. Depression of the platen arm in the usual manner by the handle 34 will cause the identification characters 38 to be printed in the position shown at 38' in Fig. 10. During the depression of the carriage the pawl 28 will ride over the ratchet 27 and then as the carriage is raised in the usual manner the pawl will operate the ratchet one tooth to cause a partial rotation of the cam 16 from the position shown in Fig. 4 to that shown in Fig. 6. This rotation will move the lever 14 on its pivot, as shown in Fig. 6, thus causing a forward movement of the rod 9. This movement is sufficient to cause the end of the rod to engage the pin 26 and therefore cause movement of the rod 11 with the gauge 8 thereon. It will thus be obvious that this movement of the rod 9 causes operation of the cut-off plate 6, which is secured to the rod 9, the gauge 8 which is secured to the rod 11, and the platen which is secured to the rod 9 by means of the link 22. The parts are now in the position shown in Fig. 6 and it will be seen that the opening 7 in the cut-off plate is directly over the address 37 on the printing device. A second actuation of the platen arm will cause an impression of the address to be made upon the card as shown at 37' in Fig. 10, the card for this purpose being shifted by hand to the right hand corner of the gauge 8. The card will then have the address and identification characters arranged thereon in the position shown in Fig. 10. As the carriage is again lifted from the printing position a second actuation of the ratchet 27 is caused, thus returning the parts to the position shown in Fig. 4. The printing device may then be removed from printing position in the usual manner and the operation repeated.

When the printing device shown in Fig. 7 is to be used, the operation is essentially the same except that an adjustment is made by moving the pin 19 from the hole 20 to the hole 21 and the pivoted stop 33 is swung into position to engage the pin 31, as shown in Fig. 8. The operation is then performed in exactly the same manner as that just described, the initial position being shown in Fig. 8 and the intermediate position, corresponding to that of Fig. 6, being shown in Fig. 9.

We are aware that changes in the form, construction and arrangement of parts may be made without departing from the spirit and without sacrificing the advantages of the invention and we reserve the right to make all such changes as fairly fall within the scope of the following claims:

We claim:

1. A machine of the class described comprising a platen, a printing device with which said platen is adapted to co-operate, a cut-off plate adapted to cover a portion of said printing device, and means operated by movement of said platen to shift said cut-off plate to uncover different portions of said printing device.

2. A machine of the class described comprising a platen, a printing device with

which said platen is adapted to co-operate, a cut-off plate adapted to cover a portion of said printing device, means operated by movement of said platen to shift said cut-off plate to uncover different portions of said printing device, and means to adjust said shifting means, for the purpose set forth.

3. A machine of the class described comprising a platen arm, a platen on said arm, and means to adjust said platen to bring it to different positions on said arm, for the purpose set forth.

4. A machine of the class described comprising a platen, a printing device with which said platen is adapted to co-operate, a gauge to receive articles to be printed upon, and means operated by movement of said platen to shift said gauge to cause said platen and said device to print upon a different portion of an article in said gauge.

5. A machine of the class described comprising a platen, a printing device with which said platen is adapted to co-operate, a gauge to receive articles to be printed upon, means operated by movement of said platen to shift said gauge to cause said platen and said device to print upon a different portion of an article in said gauge, and means to adjust said shifting means, for the purpose set forth.

6. A machine of the class described comprising a platen, a printing device with which said platen is adapted to co-operate, a cut-off plate adapted to cover a portion of said printing device, a gauge to receive articles to be printed upon, and means operated by movement of said platen to shift said cut-off plate and said gauge, for the purpose set forth.

7. A machine of the class described comprising a platen, means to move said platen to and from printing position, a printing device adapted to co-operate with said platen, and means operated by movement of said platen to shift it in respect to said printing device.

8. A machine of the class described comprising a platen, means to move said platen to and from printing position, a printing device adapted to co-operate with said platen, and means operated by movement of said platen from printing position to shift it in respect to said printing device.

9. A machine of the class described comprising a platen, a printing device with which said platen is adapted to co-operate, a cut-off plate adapted to cover a portion of said printing device, a gauge to receive articles to be printed upon, means operated by movement of said platen to shift said cut-off plate and said gauge, and means to adjust said shifting means, for the purpose set forth.

10. A machine of the class described comprising a platen, means to move said platen to and from printing position, a printing device adapted to co-operate with said platen, means operated by movement of said platen to shift it in respect to said printing device, and means to adjust said shifting means, for the purpose set forth.

11. A machine of the class described comprising a platen, a printing device with which said platen is adapted to co-operate, a cut-off plate adapted to cover a portion of said printing device, a gauge to receive articles to be printed upon, a platen, means to move said platen to and from printing position, and means operated by movement of said platen from printing position to shift said cut-off plate, said gauge and said platen, for the purpose set forth.

12. A machine of the class described comprising a platen, a printing device with which said platen is adapted to co-operate, a cut-off plate adapted to cover a portion of said printing device, a gauge to receive articles to be printed upon, a platen, means to move said platen to and from printing position, and means operated by movement of said platen to shift said cut-off plate, said gauge and said platen, for the purpose set forth.

13. A machine of the class described comprising a platen, a printing device with which said platen is adapted to co-operate, a cut-off plate adapted to cover a portion of said printing device, a gauge to receive articles to be printed upon, a platen, means to move said platen to and from printing position, means operated by movement of said platen to shift said cut-off plate, said gauge and said platen, and means to adjust the shifting means for said cut-off plate, said gauge and said platen in unison, for the purpose set forth.

14. A machine of the class described comprising a platen, a printing device with which said platen is adapted to co-operate, a cut-off plate adapted to cover a portion of said printing device, a cam, means to operate said cam by movement of said platen, and means controlled by said cam to govern the positions of said platen and said cut-off plate in respect to said printing device.

15. A machine of the class described comprising a platen, a printing device with which said platen is adapted to co-operate, a cut-off plate adapted to cover a portion of said printing device, a gauge to receive articles to be printed upon, a cam, means to operate said cam by movement of said platen, and means controlled by said cam to govern the positions of said platen, said cut-off plate and said gauge in respect to said printing device.

16. A machine of the class described comprising a platen, a printing device with which said platen is adapted to co-operate, a cut-off plate adapted to cover a portion of

said printing device, a gauge to receive articles to be printed upon, a cam, means controlled by said cam to govern the positions of said platen, said cut-off plate and said gauge in respect to said printing device, and means to adjust the position of said platen, said cut-off and said gauge in respect to said cam.

17. A machine of the class described comprising a platen, a printing device with which said platen is adapted to co-operate, means to move said platen to and from printing position, means causing said platen to print from one part of said printing device at one operation thereof, and means operated by the platen for causing said platen to print from another portion of said printing device on the next operation thereof.

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